



EDITORIAL



The importance of physical activity in the elderly population with comorbidities in a post-pandemic era

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During the COVID-19 pandemic, the world faced significant challenges that impacted all age groups. Among the most vulnerable, the elderly population with comorbidities had the greatest challenge to their physical, social, and mental health¹. The lockdown imposed by health authorities that aimed at slowing the spread of the virus had a large drawback in terms of the level of physical activity, risk factors, frailty, and falls risk in the elderly. Furthermore, several health issues were exacerbated, including higher levels of obesity, diabetes mellitus, dyslipidemia, cardiovascular diseases, sleep problems, and depression².

A decrease in the level of physical activity was observed following quarantine, and this trend prevailed even a year after the early stages of the pandemic. A large populational study in individuals more than 65 years old showed that during the early years of the pandemic, nearly 30% of them experienced an impairment in exercise levels, which was significantly related to detriments in quality of life, and this trend prevailed even a year after the early stages of the pandemic³. Given this post-pandemic scenario, it is essential that we redefine strategies to improve the quality of life of these demographics.

Prolonged physical inactivity among elderly individuals with comorbidities can exacerbate existing

health conditions, leading to an increased risk of cardiovascular complications. It contributes to muscle atrophy and decreased bone density, elevating susceptibility to falls and fractures. In addition, prolonged sedentary behavior is linked to higher rates of cognitive decline, potentially worsening conditions such as dementia or Alzheimer's disease in this population⁴.

As we face this challenging and unprecedented time, it is important to consider strategies to mitigate the negative health consequences of the pandemic and create strategies to lessen the long-term impacts. In this context, physical activity stands out as an important tool to support a healthy lifestyle and reverse sedentary behavior⁴. Despite the increased availability of home-based programs that were largely made available during the pandemic, the elderly population may not have benefited as much as those who were more comfortable using technology as a means to engage in structured exercise programs.

The World Health Organization (WHO) recommends that this population performs at least 150 min of moderate intensity or 75-150 min of vigorous aerobic exercise weekly⁵. A clinical trial showed that in the elderly who faced social isolation during the pandemic, a structured physical exercise program improved both the physical performance and cognition

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of these individuals. This proves that physical exercise can be an ally to reverse the health consequences of pandemic-related curfews for this population⁶. Physical exercise has benefits previously demonstrated in the literature, including improved glycemic level, reduced blood pressure, and improved cardiovascular risk profile in people with comorbidities⁷.

As we shift into a post-pandemic era, a proper approach to address health in seniors will require not only the promotion and encouragement of physical activity but also specific strategies for this vulnerable population focusing on increasing the effectiveness of overall care⁶. Multicomponent interventions are often used based on motor, sensory, and cognitive rehabilitation techniques and have already demonstrated benefits in elderly individuals. Furthermore, community-based exercise programs have the advantage of being low cost and easy to access, considering that these activities can be performed in public places or parks⁸. Community programs, support groups, and senior centers are relevant in fostering a sense of belonging and encouraging regular physical activity among the elderly population. Moreover, healthcare professionals should use motivational strategies to encourage adherence to exercise routines, including social support networks, setting achievable goals, using technology for monitoring and feedback, and celebrating milestones.

A study in older adults with coronary disease showed a decrease in adherence to training zones measured by heart rate monitors as exercise program intensity progressed⁹. Technology offers valuable tools to help adherence and motivation to stay active by providing real-time feedback, personalized guidance, and motivation through wearable devices and apps. However, the drawbacks may include technological barriers for some elderly individuals. Balancing these aspects and personalizing exercise prescription, whether with technology or subjective means to guarantee exercise intensity such as with the 'Talk Test' or Borg scale, is crucial to maximize the benefits of being active while addressing barriers in this demographic.

In addition to these interventions, personalized

exercise programs, including telerehabilitation or telemonitoring options, have stood out and can play a crucial role in reintegrating older adults into regular physical exercise in a safe and effective way. Studies suggest that remote exercise supervision, whether through monitoring via phone calls or weekly visits, is recommended to improve the effects of physical exercise and reduce the risk of falls in the elderly⁴. These adaptations are essential for overcoming physical and emotional barriers in the post-pandemic period through the development of efficient exercise protocols focused on this population.

It is also important to raise awareness of the importance and benefits of physical activity and to increase knowledge about diseases, risk factors, and prevention strategies. In addition to promoting social inclusion, this practice encourages collective support for creating an environment conducive to health promotion¹⁰.

Health promotion must be integrated into a multidisciplinary approach. The participation of geriatricians, physiotherapists, occupational therapists, psychologists, physical educators, nurses, nutritionists, and other clinicians and health assistants is important to address not only physical activity but also other aspects relevant to the health of elderly people with comorbidities, such as the control of modifiable risk factors. In this context, the goal of the multidisciplinary approach should be to promote a healthier lifestyle and provide necessary interventions to mitigate post-pandemic consequences through the implementation of physical activity practices, reduction of functional losses, and support of healthy habits^{2,4}.

In conclusion, in this post-pandemic era, clinicians and researchers should engage in the current task force to prevent further health-related detriment in those who are more susceptible, such as the elderly population living with comorbidities. Approaches must involve a multidisciplinary team and should focus on removing barriers to the use of accessible technology to facilitate physical activity among other healthy habits that seek longevity and a resilient community.

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